

## LISTING OF CLAIMS:

Claims 1-2 canceled.

- 1           3. (previously amended) A gear-reduction device for measuring and  
2     transmitting rotary and swivel movements, comprising a plurality of wheel/pinion pairs,  
3     each wheel/pinion pair having a gear axle, a gear wheel and a pinion gear, the gear  
4     wheel and the pinion gear being rigidly connected to the gear axle; said gear-  
5     reduction device being adapted to be coupled to a rotary object that moves in a plane  
6     of rotation and whose movement is to be measured within a measuring range; and  
7     said gear-reduction device producing an output motion that is reduced in relation to  
8     the movement of the rotary object, thereby expanding the measuring range; wherein  
9           the gear wheels of the different wheel/pinion pairs lie in different gear-  
10    wheel planes, at least a part of the gear-wheel planes being parallel to each other and  
11    inclined in relation to the plane of rotation of the rotary object;  
12           the gear wheels of the different wheel/pinion pairs are of equal diameter;  
13           the wheel/pinion pairs follow each other in a sequence where the pinion  
14    gear of each wheel/pinion pair is engaged in the gear wheel of the next following  
15    wheel/pinion pair;  
16           the gear wheel of the first wheel/pinion pair in the sequence is an input  
17    wheel, being positively engaged and driven by the rotary object;  
18           the gear wheel of the last wheel/pinion pair in the sequence is an output  
19    wheel, the pinion of the last wheel/pinion pair being adapted to positively engage and  
20    drive an optical angle-measuring device adapted for rotary swivel motion in a swivel-



18 wheel, being positively engaged and driven by the rotary object;  
19 the gear wheel of the last wheel/pinion pair in the sequence is an output  
20 wheel, the pinion of the last wheel/pinion pair being adapted to positively engage and  
21 drive an optical angle-measuring device adapted for rotary swivel motion in a swivel-  
22 motion plane;  
23 the gear-wheel plane of the output wheel is parallel to the swivel-motion  
24 plane of the optical angle-measuring device; and  
25 all gear-wheel planes are parallel to each other and inclined at an oblique  
26 angle in relation to the plane of rotation of the rotary object.

1 5. (previously amended) The gear-reduction device of claim 3, wherein  
2 the input wheel has an input shaft and is kinematically coupled to a driving unit, and  
3 the output wheel has a central output shaft adapted to transmit movement to a driven  
4 device.

1 6. (original) The gear-reduction device of claim 5, further comprising a  
2 base plate, a cover plate, and a plurality of rotary bearings mounted in the base plate  
3 and the cover plate, wherein at least the input shaft and the central output shaft run in  
4 the rotary bearings and wherein further the gear-reduction device is adapted to be  
5 flange-mounted on the driving unit and to form a unitary module with the driving unit.

1 7. (new) The gear-reduction device of claim 4, wherein the input wheel  
2 has an input shaft and is kinematically coupled to a driving unit, and the output wheel

3 has a central output shaft adapted to transmit movement to a driven device.

1 8. (new) The gear-reduction device of claim 7, further comprising a base  
2 plate, a cover plate, and a plurality of rotary bearings mounted in the base plate and  
3 the cover plate, wherein at least the input shaft and the central output shaft run in the  
4 rotary bearings and wherein further the gear-reduction device is adapted to be flange-  
5 mounted on the driving unit and to form a unitary module with the driving unit.